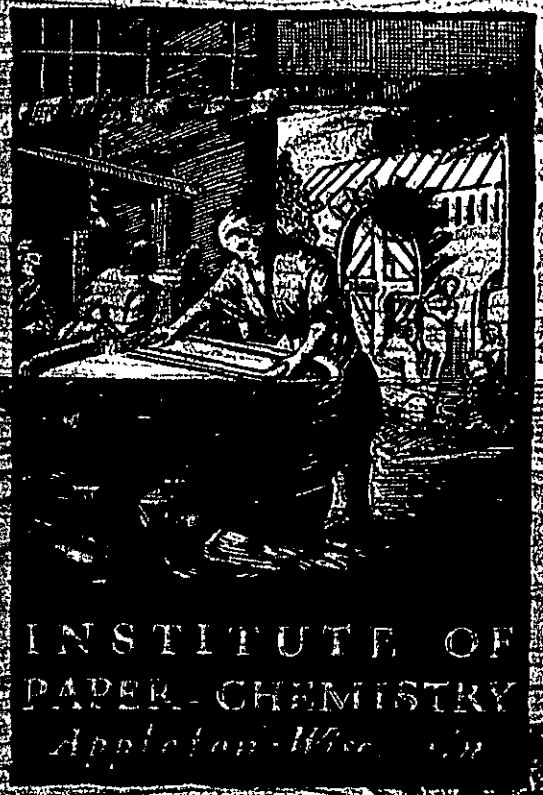

CONTINUOUS BASELINE STUDY

Project 1108-B

Progress Report 30

to

FOURDRINIER KRAFT BOARD INSTITUTE

JANUARY 1, 1950

THE INSTITUTE OF PAPER CHEMISTRY

APPLETON, WISCONSIN

CONTINUOUS BASELINE STUDY

Project 1108-B

Progress Report 30

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January 1, 1950

THE INSTITUTE OF PAPER CHEMISTRY

APPLETON, WISCONSIN

In conjuction with the F.K.I. Continuous Baseline Study, fifty-seven different sample lots of 42-lb. Fourdrinier kraft linerboard were submitted by nine different F.K.I. mills to The Institute of Paper Chemistry for testing during the period December 1 through December 31. In addition to the 42-lb. kraft linerboard, eight samples of special drum stock were also submitted for evaluation by one of the participating mills. The results on the special stock are tabulated separately in this report. A tabulation of the number of samples classified according to mill may be seen in Table I.

TABLE I

DISTRIBUTION OF 42-LB. LINERBOARD SAMPLES

Mill Code	Samples Submitted
A	5
B	2
C	7
D	6
E	0
F	20
G	8
H	2
I	3
J	4
	57

These sample lots were tested for basis weight, caliper bursting strength, G. E. puncture, and Elmendorf tear. A comparison of the average strength results for each mill may be seen in Table II and is graphically presented in Figures 1 to 6 inclusive. In addition to a comparison of the mill averages, Table II also shows the current F.K.I. averages, the cumulative F.K.I. averages, and the F.K.I. indexes. The cumulative F.K.I. averages include all the results up to but not including the current period; the current period in the case of this report is December 1 through December 31; the F.K.I. index is obtained as follows:

$$\frac{\text{current F.K.I. average}}{\text{cumulative F.K.I. average}} \times 100 = \text{F.K.I. index (\%)}$$

The F.K.I. index provides a ready means of comparing the current quality with previous results. For example, the current F.K.I. average basis weight is 43.1 lb., whereas the cumulative F.K.I. average basis weight is 43.2. Hence, the index for basis weight determined in per cent as indicated above is 99.8%. This signifies that the current average basis weight is lower than the cumulative average, which in this case covered the period from July 25, 1947, through November 30, 1949.

A comparison of the results in Table II and Figure 1 shows that the average basis weight for all mills with the exception of Mill H is above the 42-lb. specification set forth in Rule 41. Mill I has the highest average basis weight, it being 44.5 lb. or approximately 6.0% higher than the 42-lb. specification. On the other hand, Mill H has the lowest average basis weight, it being 41.9 lb. or approximately 0.2% lower than the 42-lb. specification.

The amount by which the mills exceed the 42-lb. specification is as follows:

Mill Code	Per Cent
A	3.3
B	--
C	2.1
D	2.4
E	--
F	2.9
G	2.1
H	-0.2
I	6.0
J	2.6

A comparison of the average basis weight data for the previous period with the current F.K.I. average indicates that the basis weight is somewhat higher.

A comparison of the average calipers for the various mills (see Figure 2) shows that the mill averages vary from a low of 12.9 for Mill H to a high of 14.8 for Mill D, the average being 13.7 which is somewhat lower than the cumulative average of 14.7.

The average bursting strength values obtained for each mill are graphically shown in Figure 3. It may be observed that the average bursting strength for the various mills ranges from a low of 102 for Mill H to a high of 116 for Mill D (Mill D also has the highest average caliper value). The current F.K.I. average bursting strength is 108,

somewhat higher than the cumulative average of 105.

The data of Table II and Figure 4 show that the average G. E. puncture result for all mills is 36 units. It may be seen that Mill F has the highest G. E. puncture value and Mill H the lowest value. Mill H also has the lowest average basis weight, caliper, and bursting strength values. The current F.K.I. average for G. E. puncture of 36 units is slightly lower than the cumulative F.K.I. average of 37 units.

A graphic comparison of the Elmendorf tear results for the various mills is given in Figures 5 and 6. The data of Table II show that Mill D has the highest average machine direction tear value (Mill D also has the highest average caliper and bursting strength values), while Mill I has the lowest. Mill F has the highest average across-machine direction tear value while Mill J has the lowest. It may be noted that the current F.K.I. average machine direction and across-machine direction tear results are slightly higher than the cumulative averages.

A comparison of the F.K.I. indexes indicates that, for the current period, the test averages for bursting strength, machine direction and across-machine direction Elmendorf tear are higher than the respective cumulative averages whereas the test averages for basis weight, caliper and G. E. puncture are lower than the cumulative averages.

In order to compare the variation within a given mill, the test results for each particular mill have been tabulated in Tables III to XIII for Mills A to J, respectively. In addition to the current

averages, cumulative averages for each mill, together with the mill factor and mill index, are given for each mill. The cumulative mill average is the average test result obtained on the samples submitted by the particular mill up to, but not including, the current average. The mill factor and the mill index are obtained as follows:

$$\frac{\text{current mill average}}{\text{cumulative mill average}} \times 100 = \text{mill factor (\%)}$$

$$\frac{\text{current mill average}}{\text{cumulative F.K.I. average}} \times 100 = \text{mill index (\%)}$$

The mill factor and the mill index serve as a ready means for comparing the current mill results either with the previous result for that particular mill or with the cumulative F.K.I. results. As more samples are included and as the test data accumulate, the factors and indexes will have added significance. Since December, 1947, the reports have contained a comparison of the test data obtained at the mills with test data obtained at The Institute of Paper Chemistry.

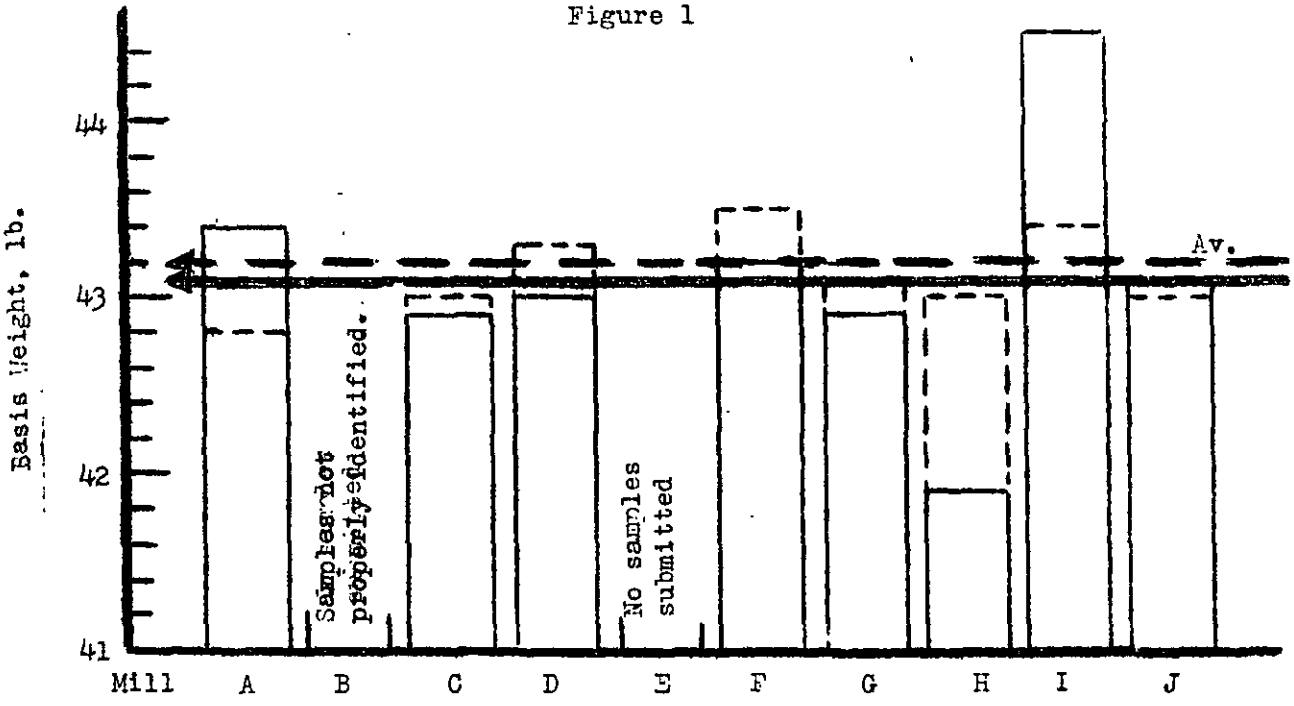
The results obtained on the special drum stock may be seen in Table XIII.

TABLE II

SUMMARY OF COMPOSITE MILL AVERAGES--DECEMBER 1 THROUGH DECEMBER 31, 1949

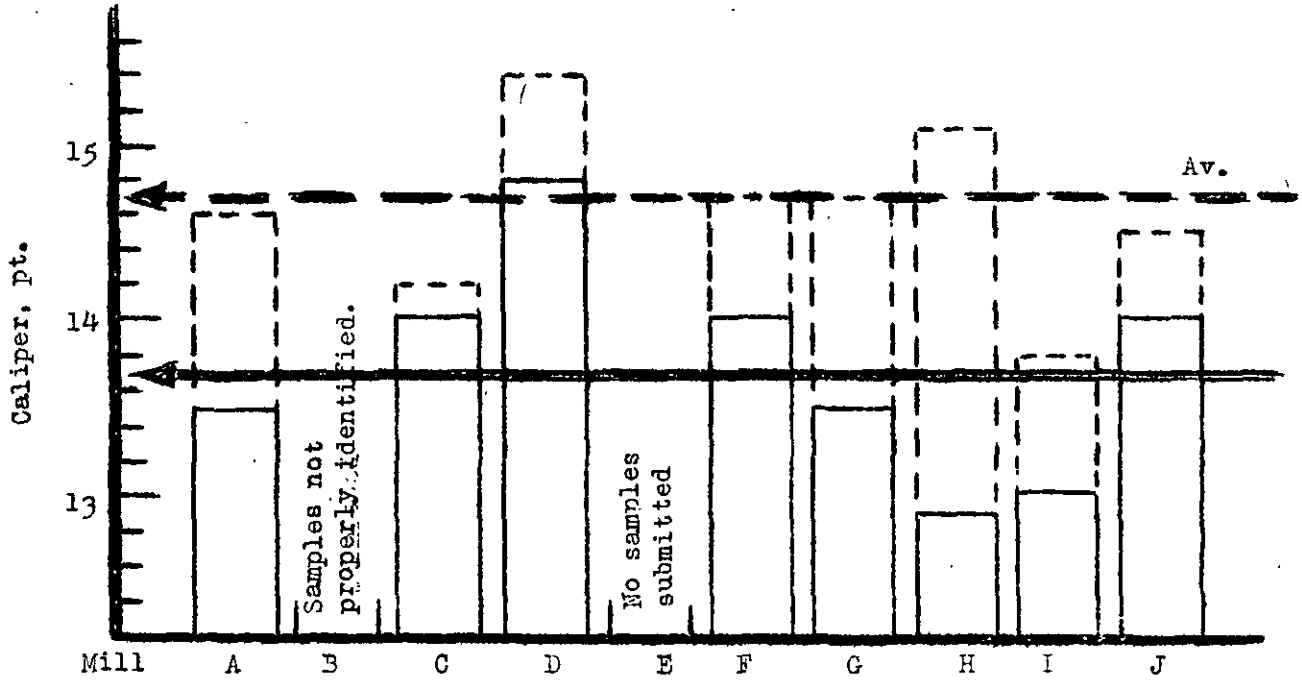
Code No.	Basis Weight, lb.	Caliper, points	Bursting Strength, points	G. E. Puncture, units	Elmendorf Tear, g./sheet In Direction	Elmendorf Tear, g./sheet Across Direction
A	43.4	13.5	108	36	364	420
B	Samples not properly identified.					
C	42.9	14.0	107	37	377	428
D	43.0	14.8	116	38	414	450
E	No samples submitted.					
F	43.2	14.0	108	39	406	451
G	42.9	13.5	110	36	403	428
H	41.9	12.9	102	32	378	406
I	44.5	13.0	103	37	355	421
J	43.1	14.0	111	34	364	398
Current FKI Average:	43.1	13.7	108	36	383	425
Cumulative FKI Average:	43.2	14.7	105	37	381	413
FKI Index, %:	99.8	93.2	102.9	97.3	100.5	102.9

Figure 1



COMPARISON OF BASIS WEIGHT RESULTS
(Period December 1 - December 31)

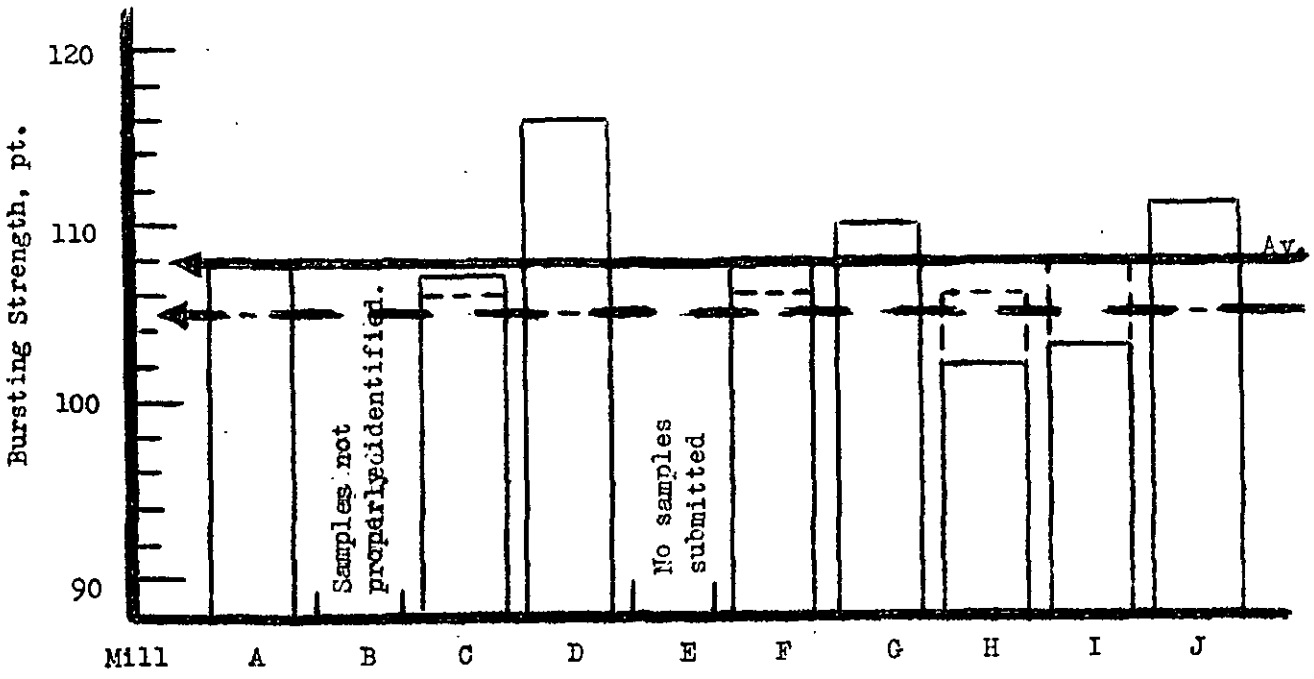
Figure 2



COMPARISON OF CALIPER RESULTS
(Period December 1 - December 31)

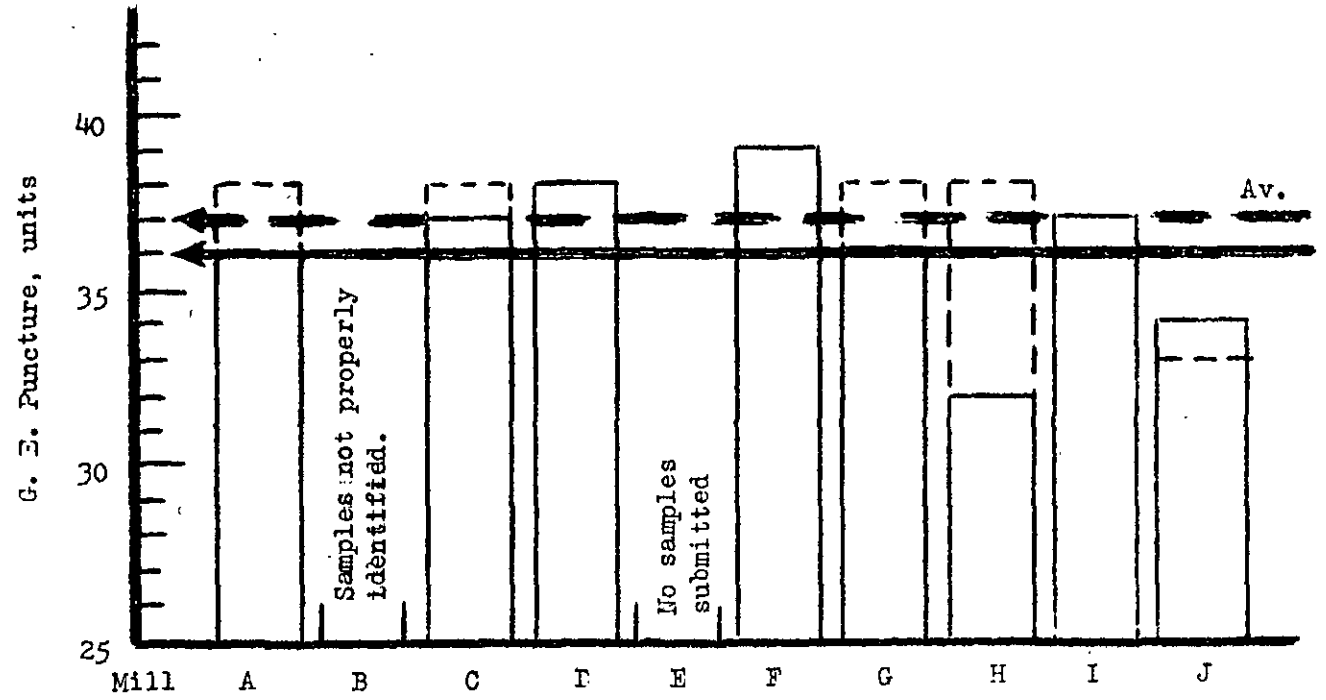
——— Current Mill Average
- - - - Cumulative Mill Average

Figure 3



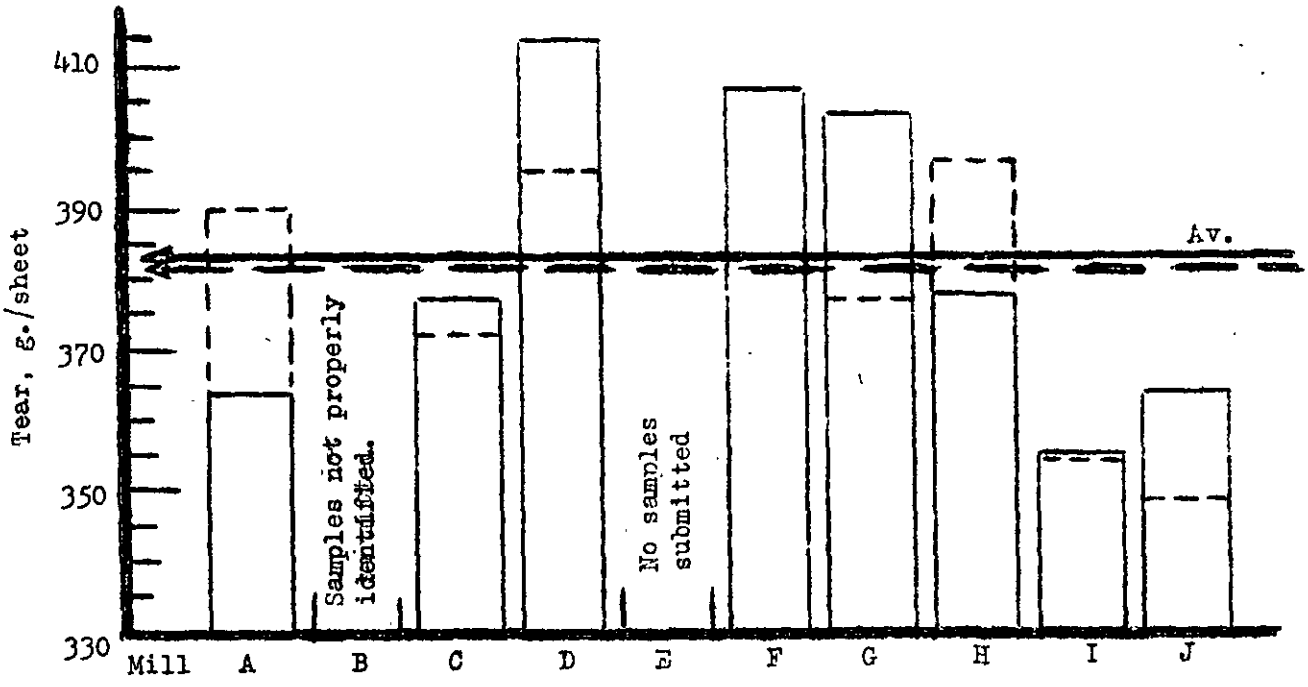
COMPARISON OF BURSTING STRENGTH RESULTS
(Period December 1 - December 31)

Figure 4



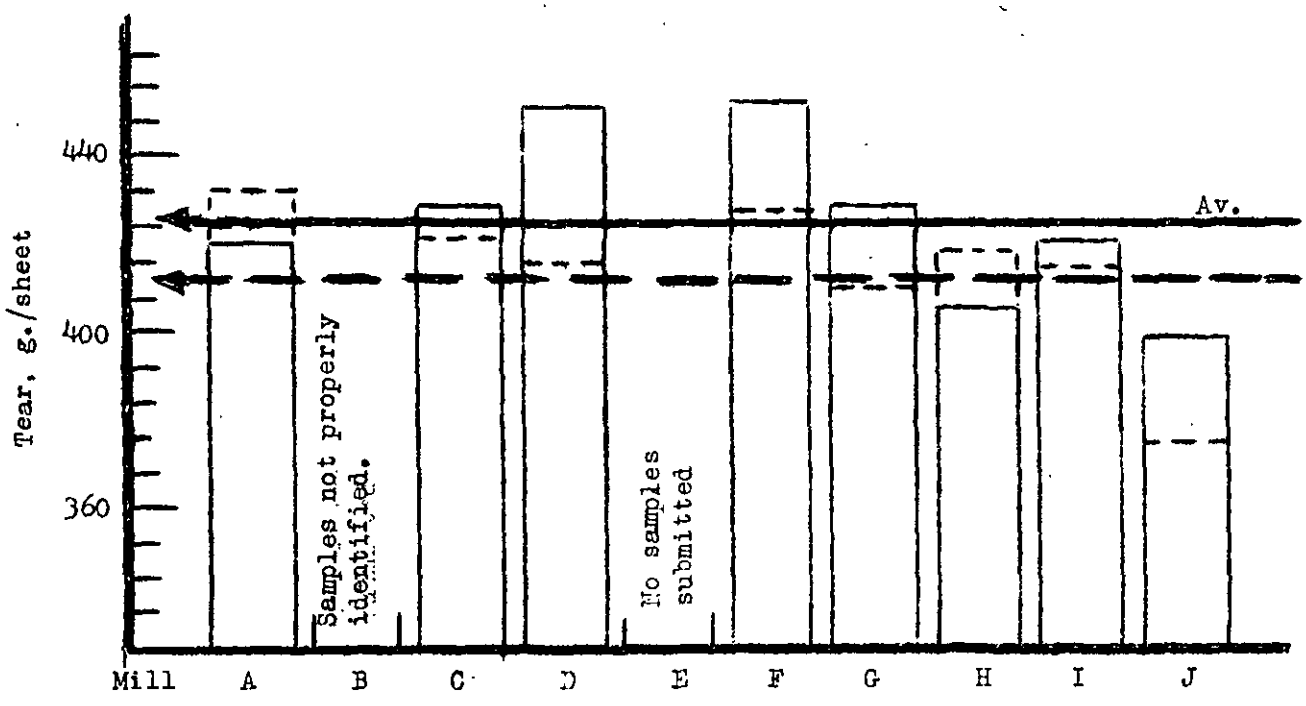
COMPARISON OF G. E. PUNCTURE RESULTS
(Period December 1 - December 31)

Figure 5



COMPARISON OF TEAR RESULTS, Machine Direction
(Period December 1 - December 31)

Figure 6



COMPARISON OF TEAR RESULTS, Across-machine Direction
(Period December 1 - December 31)

TABLE III

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH DECEMBER 31, 1949

te de	Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, points Max.	Min.	Av.	G. E. Puncture, units Max.	Min.	Av.	Elmendorf Tear, g./sheet In Max.	Min.	Av.	Across Max.	Min.	Av.
								Mill A--42-lb. Linerboard											
5/49	1	45.6	43.0	44.3	14.8	13.0	14.1	140	100	119	42	36	38	448	336	391[a]	480	400	448[a]
1/49	1	44.0	42.6	43.7	14.0	12.9	13.2	124	85	107	37	32	34	416	288	361	416	360	395[a]
6/49	2	44.4	42.2	43.5	14.3	13.2	13.9	115	83	102	41	32	36	424	296	360[a]	432	400	418[a]
8/49	2	43.0	42.0	42.4	13.9	12.5	13.4	124	86	107	39	32	36	408	320	355	488	392	432[a]
9/49	1	43.8	41.0	43.0	13.7	12.2	13.0	126	80	105	38	31	34	400	288	352[a]	448	368	407[a]
				43.4			13.5			108			36			364			420
				42.8			14.6			105			38			390			432
				101.4			92.5			102.9			94.7			93.3			97.2
				100.5			91.8			102.9			97.3			95.5			101.7

TABLE IV

Mill B--42-lb. Linerboard

Only two samples were submitted. Because the samples were not properly marked, the data are beingheld pending clarification of identity.

TABLE V

Mill C--42-lb. Linerboard

·/49	1	44.0	41.6	42.6	14.5	13.0	13.7	131	84	103	38	32	35	432	296	372[a]	464	336	415[a]
)/49	1	42.0	41.0	41.8	14.5	13.0	14.0	125	78	105	36	31	33	448	320	350[a]	416	368	396[a]
:/49	1	44.4	42.2	43.2	15.2	12.9	14.3	129	92	104	43	35	40	504	304	381	464	376	419[a]
5/49	1	43.6	41.8	42.3	14.3	13.0	13.7	138	81	110	39	33	35	416	304	367	456	376	419[a]
3/49	1	44.0	41.6	43.1	15.0	13.8	14.3	122	78	100	38	34	36	400	320	348	536	350	418[a]
L/49	1	44.6	42.6	43.7	15.1	12.7	14.0	133	92	112	44	37	40	456	384	419[a]	512	448	474[a]
./49	1	44.8	42.6	43.5	15.2	13.1	14.1	145	87	112	43	36	39	432	368	399	496	424	457[a]
				42.9			14.0			107			37			377			428
				43.0			14.2			106			38			372			421
				99.8			98.6			100.9			97.4			101.3			101.7
				99.3			95.2			101.9			100.0			99.0			103.6

readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE III

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH DECEMBER 31, 1949

File No.	Mill Code	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, points Max.	Bursting Strength, points Min.	Bursting Strength, points Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	Elmendorf Tear, g/In Max.	Elmendorf Tear, g/In Min.	Elmendorf Tear, g/In Av.
Mill A--42-lb. Linerboard																			
139393	A-110	12/ 9/49	12/ 5/49	1	45.6	43.0	44.3	14.8	13.0	14.1	140	100	119	42	36	38	448	336	39
139702	A-111	12/16/49	12/11/49	1	44.0	42.6	43.7	14.0	12.9	13.2	124	85	107	37	32	34	416	288	36
139758	A-112	12/21/49	12/16/49	2	44.4	42.2	43.5	14.3	13.2	13.9	115	83	102	41	32	36	424	296	36
139789	A-113	12/22/49	12/18/49	2	43.0	42.0	42.4	13.9	12.5	13.4	124	86	107	39	32	36	408	320	37
139907	A-113	12/24/49	12/19/49	1	43.8	41.0	43.0	13.7	12.2	13.0	126	80	105	38	31	34	400	288	37
Current Mill Average:							43.4			13.5			108			36			36
Cumulative Mill Average:							42.8			14.6			105			38			37
Mill Factor, %:							101.4			92.5			102.9			94.7			
Mill Index, %:							100.5			91.8			102.9			97.3			

TABLE IV

Mill B--42-lb. Linerboard

139759	B-191	Only two samples were submitted. Because the samples were not properly
139760	B-192	marked, the data are being held pending clarification of identity.

TABLE V

Mill C--42-lb. Linerboard

139321	C-170	12/ 3/49	11/24/49	1	44.0	41.6	42.6	14.5	13.0	13.7	131	84	103	38	32	35	432	296	35
139332	C-171	12/ 5/49	11/29/49	1	42.0	41.0	41.8	14.5	13.0	14.0	125	78	105	36	31	33	448	320	37
139396	C-172	12/12/49	12/ 2/49	1	44.4	42.2	43.2	15.2	12.9	14.3	129	92	104	43	35	40	504	304	37
139397	C-173	12/12/49	12/ 6/49	1	43.6	41.8	42.3	14.3	13.0	13.7	138	81	110	39	33	35	416	304	37
139761	C-174	12/21/49	12/ 8/49	1	44.0	41.6	43.1	15.0	13.8	14.3	122	78	100	38	34	36	400	320	37
139927	C-175	12/27/49	12/21/49	1	44.6	42.6	43.7	15.1	12.7	14.0	133	92	112	44	37	40	456	384	41
139928	C-176	12/27/49	12/21/49	1	44.8	42.6	43.5	15.2	13.1	14.1	145	87	112	43	36	39	432	368	39
Current Mill Average:							42.9			14.0			107			37			37
Cumulative Mill Average:							43.0			14.2			106			38			37
Mill Factor, %:							99.8			98.6			100.9			97.4			101
Mill Index, %:							99.3			95.2			101.9			100.0			

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE VI

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH DECEMBER 31, 1949--continued

Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, points Max.	Min.	Av.	G. E. Puncture, units Max.	Min.	Av.	Elmendorf Tear, g./sheet In Max.	Min.	Av.	Across Max.	Min.	Av.
Mill D--42-lb. Linerboard																		
4	44.0	42.0	42.9	16.1	13.5	14.7	141	88	114	40	34	37	440	344	399	480	392	431[a]
4	43.0	40.6	42.1	15.3	12.8	14.4	132	85	112	38	33	35	448	360	396	496	400	442[a]
4	44.0	41.8	42.9	15.6	14.0	14.9	143	91	121	42	33	37	456	384	413[a]	512	384	454[a]
4	43.8	41.0	42.2	14.8	13.0	13.9	142	107	123	39	32	35	424	336	395[a]	488	408	445[a]
4	46.0	43.2	44.4	17.3	15.0	16.1	129	75	112	45	35	42	488	432	466[a]	528	448	487[a]
4	44.2	42.4	43.6	15.2	13.4	14.5	130	84	111	41	35	38	464	384	417[a]	488	392	440[a]
			43.0			14.8			116			38			414			450
			43.3			15.4			105			38			395			416
			99.3			96.1			110.5			100.0			104.8			108.2
			99.5			100.7			110.5			102.7			108.7			109.0

TABLE VII

Mill E--42-lb. Linerboard

No samples submitted.

ngs for one or more specimens which tore beyond the 3/8-inch limit.

TABLE VI

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH DECEMBER 31, 1949--continued

File No.	Mill Code	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, points Max.	Min.	Av.	G. E. Puncture, units Max.	Min.	Av.	Max.	In M
										Mill D--42-lb. Linerboard								
139625	D-174	12/14/49	12/10/49	4	44.0	42.0	42.9	16.1	13.5	14.7	141	88	114	40	34	37	440	34
139626	D-175	12/14/49	12/11/49	4	43.0	40.6	42.1	15.3	12.8	14.4	132	85	112	38	33	35	448	36
139627	D-176	12/15/49	12/12/49	4	44.0	41.8	42.9	15.6	14.0	14.9	143	91	121	42	33	37	456	38
139628	D-177	12/15/49	12/13/49	4	43.8	41.0	42.2	14.8	13.0	13.9	142	107	123	39	32	35	424	33
139926	D-178	12/27/49	12/22/49	4	46.0	43.2	44.4	17.3	15.0	16.1	129	75	112	45	35	42	488	43
139983	D-179	12/29/49	12/23/49	4	44.2	42.4	43.6	15.2	13.4	14.5	130	84	111	41	35	38	464	38
Current Mill Average:							43.0			14.8			116			38		
Cumulative Mill Average							43.3			15.4			105			38		
Mill Factor, %							99.3			96.1			110.5			100.0		
Mill Index, %:							99.5			100.7			110.5			102.7		

TABLE VII

Mill E--42-lb. Linerboard

No samples submitted.

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE VIII

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH DECEMBER 31, 1949--continued

Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, points Max.	Bursting Strength, points Min.	Bursting Strength, points Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	Elmendorf Tear, g./sheet In Max.	Elmendorf Tear, g./sheet In Min.	Elmendorf Tear, g./sheet In Av.	Elmendorf Tear, g./sheet Across Max.	Elmendorf Tear, g./sheet Across Min.	Elmendorf Tear, g./sheet Across Av.
Mill F--42-lb. Linerboard																			
/16/49	--	43.6	42.0	43.0	14.4	12.0	13.7	126	91	106	42	36	39	456	304	393[a]	480	400	435[a]
/17/49	--	45.6	44.0	44.7	14.2	12.4	13.6	140	90	117	43	37	41	472	344	396	480	384	439[a]
/22/49	--	43.8	42.0	43.0	14.1	12.7	13.5	123	89	114	42	35	39	424	328	361[a]	496	376	431[a]
/22/49	--	46.4	43.6	45.4	14.9	13.0	14.0	131	95	114	45	37	42	496	376	417[a]	480	416	441[a]
/23/49	--	42.4	41.0	41.9[c]	14.9	12.5	13.6	128	78	108	42	38	40	416	320	368[a]	480	368	411[a]
/25/49	--	44.0	42.0	43.0	14.5	12.8	13.6	124	74	103	41	34	38	480	368	411[a]	480	384	448[a]
/26/49	--	45.0	42.8	44.1	14.9	13.4	14.2	138	96	115	42	36	38	448	336	415[a]	536	432	471[a]
/28/49	--	43.8	42.0	42.7	15.0	13.5	14.4	122	94	109	46	38	41	440	360	393	480	384	437[a]
/29/49	--	43.4	41.6	42.2	14.3	12.8	13.6	119	94	109	41	35	38	464	336	377[a]	464	384	417[a]
/30/49	--	43.8	42.0	43.2	14.9	13.8	14.2	129	89	112	42	37	39	440	328	376	488	416	430[a]
/ 1/49	--	44.0	42.4	43.6	15.0	13.0	13.8	122	91	108	39	36	37	448	336	405[a]	528	432	463[a]
/ 2/49	--	44.0	41.8	42.9	14.7	12.2	13.9	119	94	105	39	35	37	432	328	391	472	360	433[a]
/ 6/49	--	42.6	40.0	41.8	14.2	12.2	13.6	121	84	104	41	37	39	464	400	427[a]	544	432	468[a]
/ 8/49	--	44.2	42.0	43.4	14.8	13.1	14.0	115	94	104	40	34	37	480	376	411[a]	480	384	426[a]
/10/49	--	44.4	42.4	43.9	15.8	14.0	14.9	120	88	106	46	39	42	464	376	425	520	432	479[a]
/12/49	--	43.0	41.6	42.2	15.0	13.7	14.4	118	94	107	43	38	41	464	360	421[a]	528	464	497[a]
/13/49	--	44.2	42.0	43.4	15.0	12.8	14.0	121	90	105	43	37	40	464	400	433[a]	544	416	484[a]
/14/49	--	45.0	41.8	43.5	15.3	13.3	14.4	125	85	104	44	36	40	464	360	415	544	424	455[a]
/15/49	--	45.6	42.6	44.0[c]	15.2	13.5	14.4	130	92	108	42	35	39	520	400	476[a]	584	424	495[a]
/22/49	--	43.2	40.8	42.2	15.4	13.6	14.4	118	63	95	45	38	42	472	368	414	520	392	468[a]
				43.2			14.0			108			39			406			451
				43.5			14.7			106			39			383			427
				99.3			95.2			101.9			100			106.0			105.6
				100.0			95.2			102.9			105			106.6			109.2

readings for one or more specimens which tore beyond the 3/8-inch limit.
"F" series was not identified. However, since it was in the "F-6" position, it was assumed to be this number.
had been made on the sheets before they were weighed for basis weight.

TABLE VIII

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH DECEMBER 31, 1949--continued

File No.	Mill Code	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Brusting Strength, points			G. E. Puncture, units			Elmendorf, In	
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.
										Mill F--42-lb. Linerboard								
139398	F-75	12/12/49	11/16/49	--	43.6	42.0	43.0	14.4	12.0	13.7	126	91	106	42	36	39	456	304
139399	F-76	12/12/49	11/17/49	--	45.6	44.0	44.7	14.2	12.4	13.6	140	90	117	43	37	41	472	344
139400	F-77	12/12/49	11/22/49	--	43.8	42.0	43.0	14.1	12.7	13.5	123	89	114	42	35	39	424	328
139401	F-78	12/12/49	11/22/49	--	46.4	43.6	45.4	14.9	13.0	14.0	131	95	114	45	37	42	496	376
139402	F-79[b]	12/12/49	11/23/49	--	42.4	41.0	41.9[c]	14.9	12.5	13.6	128	78	108	42	38	40	416	320
139729	F-80	12/19/49	11/25/49	--	44.0	42.0	43.0	14.5	12.8	13.6	124	74	103	41	34	38	480	368
139730	F-81	12/19/49	11/26/49	--	45.0	42.8	44.1	14.9	13.4	14.2	138	96	115	42	36	38	448	336
139731	F-82	12/19/49	11/28/49	--	43.8	42.0	42.7	15.0	13.5	14.4	122	94	109	46	38	41	440	350
139732	F-83	12/19/49	11/29/49	--	43.4	41.6	42.2	14.3	12.8	13.6	119	94	109	41	35	38	464	336
139733	F-84	12/19/49	11/30/49	--	43.8	42.0	43.2	14.9	13.8	14.2	129	89	112	42	37	39	440	328
139984	F-85	12/29/49	12/ 1/49	--	44.0	42.4	43.6	15.0	13.0	13.8	122	91	108	39	36	37	448	336
139985	F-86	12/29/49	12/ 2/49	--	44.0	41.8	42.9	14.7	12.2	13.9	119	94	105	39	35	37	432	328
139986	F-87	12/29/49	12/ 6/49	--	42.6	40.0	41.8	14.2	12.2	13.6	121	84	104	41	37	39	464	400
139987	F-88	12/29/49	12/ 8/49	--	44.2	42.0	43.4	14.8	13.1	14.0	115	94	104	40	34	37	480	376
139988	F-89	12/29/49	12/10/49	--	44.4	42.4	43.9	15.8	14.0	14.9	120	88	106	46	39	42	464	376
139989	F-90	12/29/49	12/12/49	--	43.0	41.6	42.2	15.0	13.7	14.4	118	94	107	43	38	41	464	350
139990	F-91	12/29/49	12/13/49	--	44.2	42.0	43.4	15.0	12.8	14.0	121	90	105	43	37	40	464	400
139991	F-92	12/29/49	12/14/49	--	45.0	41.8	43.5	15.3	13.3	14.4	125	85	104	44	36	40	464	350
139992	F-93	12/29/49	12/15/49	--	45.6	42.6	44.0[c]	15.2	13.5	14.4	130	92	108	42	35	39	520	400
139993	F-94	12/29/49	12/22/49	--	43.2	40.8	42.2	15.4	13.6	14.4	118	63	95	45	38	42	472	368
Current Mill Average:							43.2			14.0			108			39		
Cumulative Mill Average							43.5			14.7			106			39		
Mill Factor, %:							99.3			95.2			101.9			100.0		
Mill Index, %:							100.0			95.2			102.9			105.4		

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

[b] One of the sheets in the "F" series was not identified. However, since it was in the "F-6" position, it was assumed to t

[c] The burst determinations had been made on the sheets before they were weighed for basis weight.

TABLE IX

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH DECEMBER 31, 1949--continued

Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, points Max.	Bursting Strength, points Min.	Bursting Strength, points Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	Elmendorf Tear, g./sheet In Max.	Elmendorf Tear, g./sheet In Min.	Elmendorf Tear, g./sheet In Av.	Elmendorf Tear, g./sheet Across Max.	Elmendorf Tear, g./sheet Across Min.	Elmendorf Tear, g./sheet Across Av.
							Mill G--42-lb. Linerboard												
11/28/49	1	44.2	42.2	43.3	15.2	13.2	14.1	133	85	104	40	33	36	464	376	416[a]	536	392	456[a]
11/30/49	1	44.2	42.0	43.1	14.2	13.0	13.6	123	85	105	36	30	33	480	352	399[a]	456	368	403[a]
12/ 8/49	1	42.6	40.2	41.5	14.0	12.8	13.3	143	94	114	36	30	33	456	336	391[a]	448	360	410[a]
12/ 8/49	1	42.0	40.2	41.5	14.0	13.0	13.4	116	90	103	35	31	33	424	336	377[a]	432	336	403[a]
12/12/49	1	44.0	42.2	43.2	13.9	12.6	13.3	142	93	115	39	34	36	448	352	399[a]	472	384	440[a]
12/12/49	1	44.0	42.0	42.9	14.2	12.5	13.5	122	95	108	40	32	37	464	376	410[a]	464	384	433[a]
12/21/49	1	44.0	42.8	43.6	14.2	12.0	13.4	140	90	113	43	36	39	456	352	409	480	384	430[a]
12/21/49	1	44.0	42.4	43.7	14.1	12.8	13.5	136	85	116	41	35	38	488	384	419[a]	496	400	447[a]
				42.9			13.5			110			36			403			428
				43.1			14.7			108			38			377			410
				99.5			91.8			101.9			947			106.9			104.4
				99.3			91.8			104.8			973			105.8			103.6

TABLE X

							Mill H--42-lb. Linerboard												
12/12/49[b]	2	42.4	40.6	41.8	13.2	12.0	12.7	120	80	102	35	29	32	424	320	349	416	336	336[a]
12/14/49	3	42.6	41.8	42.1	13.9	12.3	13.0	123	72	103	37	30	32	464	368	406[a]	480	384	426[a]
				41.9			12.9			102			32			378			406
				43.0			15.1			106			38			396			418
				97.4			85.4			96.2			842			95.5			97.1
				97.0			87.8			97.1			865			99.2			98.3

[a] readings for one or more specimens which tore beyond the 3/8-inch limit.
[b] sample. The mill data sheet gives the date of manufacture as December 5, 1949.

TABLE IX

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH DECEMBER 31, 1949--continued

File No.	Mill Code	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units				
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Mi
Mill G--42-lb. Linerboard																		
139316	G-210	12/ 2/49	11/28/49	1	44.2	42.2	43.3	15.2	13.2	14.1	133	85	104	40	33	36	464	3
139317	G-211	12/ 2/49	11/30/49	1	44.2	42.0	43.1	14.2	13.0	13.6	123	85	105	36	30	33	480	3
139394	G-212	12/12/49	12/ 8/49	1	42.6	40.2	41.5	14.0	12.8	13.3	143	94	114	36	30	33	456	3
139395	G-213	12/12/49	12/ 8/49	1	42.0	40.2	41.5	14.0	13.0	13.4	116	90	103	35	31	33	424	3
139630	G-214	12/15/49	12/12/49	1	44.0	42.2	43.2	13.9	12.6	13.3	142	93	115	39	34	36	448	3
139631	G-215	12/15/49	12/12/49	1	44.0	42.0	42.9	14.2	12.5	13.5	122	95	108	40	32	37	464	3
139901	G-216	12/23/49	12/21/49	1	44.0	42.8	43.6	14.2	12.0	13.4	140	90	113	43	36	39	456	3
139902	G-217	12/23/49	12/21/49	1	44.0	42.4	43.7	14.1	12.8	13.5	136	85	116	41	35	38	488	3
Current Mill Average:							42.9			13.5			110			36		
Cumulative Mill Average:							43.1			14.7			108			38		
Mill Factor, %:							99.5			91.8			101.9			947		
Mill Index, %:							99.3			91.8			104.8			973		

TABLE X

Mill H--42-lb. Linerboard

139748	H-148	12/20/49	12/12/49[b]	2	42.4	40.6	41.8	13.2	12.0	12.7	120	80	102	35	29	32	424	3
139924	H-149	12/27/49	12/14/49	3	42.6	41.8	42.1	13.9	12.3	13.0	123	72	103	37	30	32	464	3
Current Mill Average:							41.9			12.9			102			32		
Cumulative Mill Average:							43.0			15.1			106			38		
Mill Factor, %:							97.4			85.4			96.2			842		
Mill Index, %:							97.0			87.8			97.1			865		

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

[b] This date appeared on the sample. The mill data sheet gives the date of manufacture as December 5, 1949.

TABLE XI

RY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH DECEMBER 31, 1949--continued

Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, points Max.	Min.	Av.	G. E. Puncture, units Max.	Min.	Av.	Elmendorf Tear, g./sheet In Max.	Min.	Av.	Across Max.	Min.	Av.
				Mill I--42-lb. Linerboard														
1	45.6	43.8	44.3	13.0	11.1	12.3	132	80	105	36	32	34	384	304	337	464	376	407[a]
1	45.6	42.4	44.6	14.0	12.9	13.4	119	86	105	40	35	38	416	312	361	456	384	430[a]
1	45.8	43.0	44.7	14.1	12.8	13.3	122	78	101	42	35	38	432	288	368[a]	488	376	426[a]
			44.5			13.0			103			37			355			421
			43.4			13.8			108			36			354			415
			102.5			94.2			95.4			102.8			100.3			101.4
			103.0			88.4			98.1			100.0			93.2			101.9

TABLE XII

				Mill J--42-lb. Linerboard														
1	44.0	41.6	42.8	14.4	13.0	13.9	123	84	111	37	31	33	408	288	353[a]	416	336	377[a]
1	43.2	41.0	42.1	14.5	13.2	13.9	130	102	115	35	31	33	392	336	355	432	360	405[a]
1	44.3	43.6	44.1	15.0	13.2	14.1	132	83	110	39	33	35	432	304	377[a]	464	368	411[a]
1	44.4	41.8	43.4	14.8	13.1	13.9	126	90	110	40	34	36	432	328	370[a]	472	352	393[a]
			43.1			14.0			111			34			364			398
			43.0			14.5			105			33			348			375
			100.2			96.6			105.7			103.0			104.6			106.1
			99.8			95.2			105.7			91.9			95.5			96.4

; for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XI

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH DECEMBER 31, 1949--continued

File No.	Mill Code	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, points Max.	Bursting Strength, points Min.	Bursting Strength, points Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	Ma
								Mill I--42-lb. Linerboard									
139333	I-91	12/ 5/49	11/28/49	1	45.6	43.8	44.3	13.0	11.1	12.3	132	80	105	36	32	34	38
139798	I-92	12/23/49	12/ 3/49	1	45.6	42.4	44.6	14.0	12.9	13.4	119	86	105	40	35	38	41
139799	I-93	12/23/49	12/ 6/49	1	45.8	43.0	44.7	14.1	12.8	13.3	122	78	101	42	35	38	43
Current Mill Averages:							44.5			13.0			103			37	
Cumulative Mill Average:							43.4			13.8			108			36	
Mill Factor, %:							102.5			94.2			95.4			102.8	
Mill Index, %:							103.0			88.4			98.1			100.0	

TABLE XII

								Mill J--42-lb. Linerboard									
139390	J-171	12/ 7/49	12/ 4/49	1	44.0	41.6	42.8	14.4	13.0	13.9	123	84	111	37	31	33	40
139391	J-172	12/ 7/49	12/ 4/49	1	43.2	41.0	42.1	14.5	13.2	13.9	130	102	115	35	31	33	39
139724	J-173	12/19/49	12/14/49	1	44.3	43.6	44.1	15.0	13.2	14.1	132	83	110	39	33	35	43
139725	J-174	12/19/49	12/14/49	1	44.4	41.8	43.4	14.8	13.1	13.9	126	90	110	40	34	36	43
Current Mill Average:							43.1			14.0			111			34	
Cumulative Mill Average:							43.0			14.5			105			33	
Mill Factor, %:							100.2			96.6			105.7			103.0	
Mill Index, %:							99.8			95.2			105.7			91.9	

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XIII

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH DECEMBER 31, 1949--continued

ıte ıde	Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, points Max.	Min.	Av.	G. E. Puncture, units Max.	Min.	Av.	Elmendorf Tear, g./sheet In Max.	Min.	Av.	Across Max.	Min.	Av.
								Mill E--44/46-lb. Drum Linerboard											
:9/49	1	45.8	43.2	44.4	13.7	12.2	13.1	142	104	122	36	32	35	464	384	410[a]	464	368	413[a]
1/49	1	47.6	44.2	45.7	14.3	12.8	13.5	120	92	110	38	31	35	448	384	419	440	368	413[a]
5/49	1	48.0	46.2	47.1	14.2	13.1	13.6	118	84	102	41	35	38	544	416	467[a]	448	352	404[a]
3/49	1	48.0	46.4	47.2	13.8	13.1	13.4	137	107	116	44	39	41	488	392	446[a]	496	400	442[a]
5/49	1	47.0	44.2	46.0	14.0	12.8	13.3	123	88	107	43	36	39	472	400	433[a]	472	384	413[a]
2/49	1	48.0	45.8	47.4	14.3	13.0	13.7	125	86	106	40	36	38	528	424	490[a]	472	400	433[a]
3/49	1	48.0	46.0	47.0	14.2	13.0	13.7	125	86	108	43	38	40	552	432	467[a]	472	392	439[a]
8/49	1	48.4	46.4	47.7	15.3	14.0	14.6	123	90	101	49	39	43	552	416	478[a]	512	376	458[a]
				46.6			13.6			109			39			451			427
				46.8			14.0			100			41			442			437
				99.6			97.1			109.0			95.1			102.0			97.7

eadings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XIII

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH DECEMBER 31, 1949--continued

File No.	Mill Code	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			F In	
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	M
Mill E--44/46-lb. Drum Linerboard																		
139318	E-122	12/ 2/49	11/29/49	1	45.8	43.2	44.4	13.7	12.2	13.1	142	104	122	36	32	35	464	3
139322	E-123	12/ 3/49	12/ 1/49	1	47.6	44.2	45.7	14.3	12.8	13.5	120	92	110	38	31	35	448	3
139392	E-124	12/ 7/49	12/ 5/49	1	48.0	46.2	47.1	14.2	13.1	13.6	118	84	102	41	35	38	544	4
139629	E-125	12/15/49	12/13/49	1	48.0	46.4	47.2	13.8	13.1	13.4	137	107	116	44	39	41	488	3
139728	E-126	12/19/49	12/15/49	1	47.0	44.2	46.0	14.0	12.8	13.3	123	88	107	43	36	39	472	4
139925	E-127	12/27/49	12/22/49	1	48.0	45.8	47.4	14.3	13.0	13.7	125	86	106	40	36	38	528	4
139982	E-128	12/29/49	12/23/49	1	48.0	46.0	47.0	14.2	13.0	13.7	125	86	108	43	38	40	552	4
140010	E-129	12/31/49	12/28/49	1	48.4	46.4	47.7	15.3	14.0	14.6	123	90	101	49	39	43	552	4
Current Mill Average:							46.6			13.6			109			39		
Cumulative Mill Average:							46.8			14.0			100			41		
Mill Factor, %							99.6			97.1			109.0			95.1		

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

As a supplementary part of the Continuous Baseline Study, comparisons of the mill test results with those obtained at The Institute of Paper Chemistry on corresponding samples have been included in this report. As may be noted in Table XIV, the atmospheric conditions used prior to and during the testing period varied considerably.

TABLE XIV

Mill Code	Preconditioning R.H., %	Temp., ° F.	Time, hr.	Conditioning R.H., %	Temp., ° F.	Time, hr.
A	No preconditioning			59-90	74-86	--
B	Samples not properly identified.					
C	42-50	72-75	24-120	46-50	72-75	24-96
D	34-35	70-71	8	49-52	73-74	16
E	No samples submitted.					
F	No preconditioning			No conditioning		
G	No preconditioning			No conditioning		
H	No preconditioning			50	73	24
I	No preconditioning			55-75	70-76	--
J	No preconditioning			50	73-74	1/2

A summary of the mill comparisons for the current period as compared with the previous period may be seen in Tables XV and XVI, respectively. The comparisons for the various mills are given in Tables XVII to XXVI, inclusive, for the 42-lb. liner samples. A comparison of the special drum stock is given in Table XXVII. In all the comparisons given in Tables XV to XXVII, inclusive, the Institute's test values have been used as the reference line.

A comparison of the test data in Tables XV and XVI indicates that in the majority of cases there is good agreement between the mill and Institute data. Table XV shows the average difference encountered in the comparison of Institute and mill results for the sample lots submitted by each mill for the current period, as well as the maximum difference encountered in comparing the Institute and mill test results for a given sample lot. In Table XVI, the average differences shown in Table XV have been calculated on a percentage basis for each test and each mill. In addition, for purposes of comparison, the average percentage differences for the preceding two periods are shown.

It may be noted in Table XVI that the maximum variation in the average basis weight between the results of the Institute and those of a given mill on corresponding samples is three per cent for the current period. This figure compares favorably with the maximum variation of three per cent for the preceding two periods. Further, it may be noted that the average results for Mills D and H are higher than those for the Institute, whereas the average results for Mills A, C, F, I, and J are lower and the average result for Mill G is the same.

The maximum variation in caliper for the current period is five per cent. Compared with the values for the Institute, the average results for Mills C, D, F and H are lower, the average results for Mills G and J are higher and the average results for Mills A and I are the same. None of these differences appear to be significantly large.

It may be noted in Table XVI that the bursting strength results show a maximum variation of five per cent for the current period. The

results for Mills A, C, D, F, G and J are lower than those for the Institute, while the average result for Mill I is higher and the average result for Mill H is the same. The agreement in bursting strength results is very good for the current period.

The G. E. puncture results exhibit a maximum variation of fourteen per cent for the current period. Compared with the values for the Institute, the results for Mills A, F, G and J are higher, the average result for Mill C is lower, and the average result for Mill H is the same. The difference encountered for Mills A and F appear to be rather large.

It may be seen in Table XV that the average differences encountered in connection with the machine direction tear results are negative for Mills C, D, F, G, H, I and J and positive for Mill A. The differences encountered for Mills C, D, G and H appear to be rather large.

With regard to the across-machine direction tear results, it may be noted that positive differences are shown for Mills A and J and negative differences for Mills C, D, F, G, H and I. None of the differences encountered appear to be significantly large.

TABLE XV

SUMMARY OF TEST RESULT COMPARISONS

Average Mill and Institute Results	Mill* A	B	C	D	E	F	G	H	I	J
No. Samples Compared	5	0	7	6	0	20	8	2	3	4
Basis Weight										
Institute	43.4	--	42.9	43.0	--	43.2	42.9	41.9	44.5	43.1
Mill	42.7	--	42.0	43.2	--	42.7	42.9	42.3	43.1	43.0
Av. difference**	-0.7	--	-0.9	+0.2	--	-0.5	0.0	+0.4	-1.4	-0.1
Max. difference***	-1.9	--	-1.1	+0.4	--	-1.2	+0.4	+0.6	-2.0	-0.2
Caliper										
Institute	13.5	--	14.0	14.8	--	14.0	13.5	12.9	13.0	14.0
Mill	13.5	--	13.5	14.4	+-	13.3	13.6	12.8	13.0	14.2
Av. difference**	0.0	--	-0.5	-0.4	--	-0.7	+0.1	-0.1	0.0	+0.2
Max. difference***	-0.7	--	-0.8	-0.6	--	-1.1	+0.6	-0.1	±0.3	+0.3
Bursting Strength										
Institute	108	--	107	116	--	108	110	102	103	111
Mill	104	--	105	115	--	103	109	102	107	107
Av. difference**	-4	--	-2	-1	--	-5	-1	0	+4	-4
Max. difference***	-15	--	-7	±3	--	-9	-5	±2	+5	-11
G. E. Puncture										
Institute	36	--	37	38	--	39	36	32	37	34
Mill	41	--	35	--	--	42	37	32	--	35
Av. difference**	+5	--	-2	--	--	+3	+1	0	--	+1
Max. difference***	+9	--	-3	--	--	+8	+3	-1	--	+2
Tearing Strength, in										
Institute	364	--	377	414	--	406	403	378	355	364
Mill	383	--	342	386	--	383	374	345	342	357
Average difference**	+19	--	-35	-28	--	-23	-29	-33	-13	- 7
Max. difference***	+63	--	-77	-44	--	-54	-49	-58	-41	-26
Tearing Strength, across										
Institute	420	--	428	450	--	451	428	406	421	398
Mill	425	--	425	430	--	428	402	304	419	411
Av. difference**	+5	--	-3	-20	--	-23	-26	-22	-2	+13
Max. difference***	+46	--	+44	-45	--	-45	-49	-47	-33	+54

* Comparison based on averages involves only those samples on which mill test data were submitted.

** Average difference is the difference between the Institute mill average and the mill average based on mill test data.

*** Maximum difference encountered in comparing the Institute average and the mill average for any sample submitted by that particular mill.

TABLE XVI

SUMMARY OF TEST RESULTS--COMPARISON BY PERIODS

	Average Difference, per cent					
	Basis Weight	Caliper	Bursting Strength	G.E. Puncture	Tearing Strength, in	Tearing Strength, across
Mill A						
Current period	-2	0	-4	+14	+5	+1
29th period	-3	-5	-4	-2	-9	-5
28th period	-3	+2	-3	+15	+14	+5
Mill B						
Current period	--	--	--	--	--	--
29th period	+0.7	-5	+2	-6	-10	-9
28th period	-0.4	-2	-5	-5	-13	-6
Mill C						
Current period	-2	-4	-2	-5	-9	-0.7
29th period	-1	-2	+3	0	-5	+2
28th period	-0.9	-2	-0.9	-3	+4	+6
Mill D						
Current period	+0.5	-3	-0.9	--	-7	-4
29th period	0	-2	+0.9	--	-10	-5
28th period	+0.9	-2	+0.9	--	-5	-0.5
Mill E						
Current period	--	--	--	--	--	--
29th period	--	--	--	--	--	--
28th period	+3	-2	+3	+6	+7	+14
Mill F						
Current period	-1	-5	-5	+8	-6	-5
29th period	-0.7	-5	-5	+5	-6	-3
28th period	+0.5	-3	-10	+8	0	+4
Mill G						
Current period	0	+0.7	-0.9	+3	-7	-6
29th period	-0.7	0	-2	0	-8	-7
28th period	+1	+1	-6	+8	+4	+3
Mill H						
Current period	+1	-0.8	0	0	-9	-5
29th period	--	--	--	--	--	--
28th period	+0.7	-2	-5	+6	-14	-6
Mill I						
Current period	-3	0	+4	--	-4	-0.5
29th period	-2	-0.7	+0.9	--	-2	-4
28th period	-2	0	-4	--	+11	+7
Mill J						
Current period	-0.2	+1	-4	+3	-2	+3
29th period	+0.2	+0.7	-3	+6	0	+2
28th period	+1	+1	+4	+3	+3	+5

TABLE XVII

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH DECEMBER 31, 1949

Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmendorf Tear, g./sheet					
												In			Across		
IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
Mill A--42-lb. Linerboard																	
44.3	42.4	-1.9	14.1	13.4	-0.7	119	104	-15	38	38	0	391[a]	350	-41	448[a]	409	-39
43.7	43.0	-0.7	13.2	13.5	+0.3	107	105	- 2	34	37	+3	361	360	-1	395[a]	384	-11
43.5	42.9	-0.6	13.9	13.8	-0.1	102	103	+ 1	36	43	+7	360[a]	387	+27	418[a]	429	+11
42.4	42.6	+0.2	13.4	13.5	+0.1	107	103	- 4	36	45	+9	355	418	+63	432[a]	478	+46
43.0	42.7	-0.3	13.0	13.3	+0.3	105	106	+ 1	34	40	+6	352[a]	397	+45	407[a]	426	+19
43.4	42.7	-0.7	13.5	13.5	0.0	108	104	- 4	36	41	+5	364	383	+19	420	425	+5

TABLE XVIII

Mill B--42-lb. Linerboard

Sample not properly identified.
Sample not properly identified.

TABLE XIX

Mill C--42-lb. Linerboard

42.6	41.9	-0.7	13.7	12.9	-0.8	103	105	+ 2	35	34	-1	372[a]	349	-23	415[a]	398	-17
41.8	41.0	-0.8	14.0	13.5	-0.5	105	104	- 1	33	32	-1	350[a]	334	-16	396[a]	399	+3
43.2	42.5	-0.7	14.3	13.7	-0.6	104	102	- 2	40	37	-3	381	350	-31	419[a]	429	+10
42.3	41.4	-0.9	13.7	13.3	-0.4	110	103	- 7	35	35	0	367	343	-24	419[a]	400	-19
43.1	42.0	-1.1	14.3	13.9	-0.4	100	100	0	36	33	-3	348	327	-21	418[a]	462	+44
43.7	42.7	-1.0	14.0	13.7	-0.3	112	112	0	40	37	-3	419[a]	342	-77	474[a]	448	-26
43.5	42.8	-0.7	14.1	13.8	-0.3	112	112	0	39	37	-2	399	350	-49	457[a]	440	-17
42.9	42.0	-0.9	14.0	13.5	-0.5	107	105	- 2	37	35	-2	377	342	-35	428	425	-3

gs for one or more specimens which tore beyond the 3/8-inch limit.

data are calculated from the totals of the individual readings.

TABLE XVII

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH DECEMBER 31, 1949

File No.	Mill Code	Date Made	Mch. No.	Basis Weight, lb. IPC	Mill	Diff.	Caliper, points IPC	Mill	Diff.	Bursting Strength, points IPC	Mill	Diff.	G. E. Puncture, units IPC	Mill	Diff.	Elmendo g./ In IPC	Mill	Di
									Mill A--42-lb. Linerboard									
139393	A-110	12/ 5/49	1	44.3	42.4	-1.9	14.1	13.4	-0.7	119	104	-15	38	38	0	391[a]	350	-
139702	A-111	12/11/49	1	43.7	43.0	-0.7	13.2	13.5	+0.3	107	105	- 2	34	37	+3	361	360	
139758	A-112	12/16/49	2	43.5	42.9	-0.6	13.9	13.8	-0.1	102	103	+ 1	36	43	+7	360[a]	387	+
139789	A-113	12/18/49	2	42.4	42.6	+0.2	13.4	13.5	+0.1	107	103	- 4	36	45	+9	355	418	+
139907	A-113	12/19/49	1	43.0	42.7	-0.3	13.0	13.3	+0.3	105	106	+ 1	34	40	+6	352[a]	397	+
Current Mill Average:				43.4	42.7	-0.7	13.5	13.5	0.0	108	104	- 4	36	41	+5	364	383	+

TABLE XVIII

Mill B--42-lb. Linerboard

139759	B-191	Sample not properly identified.
139760	B-192	Sample not properly identified.

TABLE XIX

Mill C--42-lb. Linerboard

139321	C-170	11/24/49	1	42.6	41.9	-0.7	13.7	12.9	-0.8	103	105	+ 2	35	34	-1	372[a]	349	-
139332	C-171	11/29/49	1	41.8	41.0	-0.8	14.0	13.5	-0.5	105	104	- 1	33	32	-1	350[a]	334	-
139396	C-172	12/ 2/49	1	43.2	42.5	-0.7	14.3	13.7	-0.6	104	102	- 2	40	37	-3	381	350	-
139397	C-173	12/ 6/49	1	42.3	41.4	-0.9	13.7	13.3	-0.4	110	103	- 7	35	35	0	367	343	-
139761	C-174	12/ 8/49	1	43.1	42.0	-1.1	14.3	13.9	-0.4	100	100	0	36	33	-3	348	327	-
139927	C-175	12/21/49	1	43.7	42.7	-1.0	14.0	13.7	-0.3	112	112	0	40	37	-3	419[a]	342	-
139928	C-176	12/21/49	1	43.5	42.8	-0.7	14.1	13.8	-0.3	112	112	0	39	37	-2	399	350	-
Current Mill Average:				42.9	42.0	-0.9	14.0	13.5	-0.5	107	105	- 2	37	35	-2	377	342	-

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XX

MARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH DECEMBER 31, 1949 (continued)

Institute Data versus Mill Data

sis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmendorf Tear, g./sheet					
												In			Across		
Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
						Mill D--42-lb. Linerboard											
43.0	+0.1	14.7	14.1	-0.6	114	112	-2	37			399	365	-34	431[a]	423	-8
42.2	+0.1	14.4	14.2	-0.2	112	115	+3	35			396	352	-44	442[a]	397	-45
43.2	+0.3	14.9	14.3	-0.6	121	122	+1	37			413[a]	386	-27	454[a]	429	-25
42.6	+0.4	13.9	13.6	-0.3	123	120	-3	35			395[a]	374	-21	445[a]	424	-21
44.2	-0.2	16.1	15.9	-0.2	112	112	0	42			466[a]	433	-33	487[a]	469	-18
43.7	+0.1	14.5	14.3	-0.2	111	111	0	38			417[a]	406	-11	440[a]	440	0
43.2	+0.2	14.8	14.4	-0.4	116	115	-1	38			414	386	-28	450	430	-20

TABLE XXI

Mill E--42-lb. Linerboard

ples submitted.

r one or more specimens which tore beyond the 3/8-inch limit.

are calculated from the totals of the individual readings.

TABLE XX

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH DECEMBER 31, 1949 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmen g.. In		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Dif
Mill D--42-lb. Linerboard																		
139625	D-174	12/10/49	4	42.9	43.0	+0.1	14.7	14.1	-0.6	114	112	-2	37			399	365	-34
139626	D-175	12/11/49	4	42.1	42.2	+0.1	14.4	14.2	-0.2	112	115	+3	35			396	352	-44
139627	D-176	12/12/49	4	42.9	43.2	+0.3	14.9	14.3	-0.6	121	122	+1	37			413[a]	386	-27
139628	D-177	12/13/49	4	42.2	42.6	+0.4	13.9	13.6	-0.3	123	120	-3	35			395[a]	374	-21
139926	D-178	12/22/49	4	44.4	44.2	-0.2	16.1	15.9	-0.2	112	112	0	42			466[a]	433	-33
139983	D-179	12/23/49	4	43.6	43.7	+0.1	14.5	14.3	-0.2	111	111	0	38			417[a]	406	-11
Current Mill Average:				43.0	43.2	+0.2	14.8	14.4	-0.4	116	115	-1	38			414	386	-28

TABLE XXI

Mill E--42-lb. Linerboard

No samples submitted.

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXII

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH DECEMBER 31, 1949 (continued)

Institute Data versus Mill Data

Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmendorf Tear, g./sheet					
												In			Across		
IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
Mill F--42-lb. Linerboard																	
43.0	41.9	-1.1	13.7	13.2	-0.5	106	100	-6	39	38	-1	393[a]	339	-54	435[a]	394	-41
44.7	43.5	-1.2	13.6	12.8	-0.8	117	109	-8	41	37	-4	396	352	-44	439[a]	398	-41
43.0	42.0	-1.0	13.5	12.5	-1.0	114	105	-9	39	35	-4	361[a]	374	+13	431[a]	417	-14
45.4	44.5	-0.9	14.0	13.5	-0.5	114	107	-7	42	41	-1	417[a]	395	-22	441[a]	444	+3
41.9[c]	41.1	-0.8	13.6	12.8	-0.8	108	102	-6	40	39	-1	368[a]	366	-2	411[a]	406	-5
43.0	42.3	-0.7	13.6	12.9	-0.7	103	102	-1	38	40	+2	411[a]	384	-27	448[a]	435	-13
44.1	43.6	-0.5	14.2	13.5	-0.7	115	107	-8	38	42	+4	415[a]	396	-19	471[a]	459	-12
42.7	42.4	-0.3	14.4	13.8	-0.6	109	105	-4	41	43	+2	393	383	-10	437[a]	411	-26
42.2	41.8	-0.4	13.6	13.1	-0.5	109	103	-6	38	41	+3	377[a]	386	+9	417[a]	412	-5
43.2	42.5	-0.7	14.2	13.4	-0.8	112	110	-2	39	39	0	376	359	-17	430[a]	406	-24
43.6	42.6	-1.0	13.8	13.0	-0.8	108	106	-2	37	40	+3	405[a]	362	-43	463[a]	418	-45
42.9	42.3	-0.6	13.9	13.2	-0.7	105	100	-5	37	38	+1	391	373	-18	433[a]	430	-3
41.8	41.7	-0.1	13.6	12.9	-0.7	104	100	-4	39	44	+5	427[a]	381	-46	468[a]	438	-30
43.4	43.3	-0.1	14.0	13.4	-0.6	104	98	-6	37	42	+5	411[a]	367	-44	426[a]	409	-17
43.9	43.5	-0.4	14.9	13.8	-1.1	106	102	-4	42	48	+6	425	406	-19	479[a]	448	-31
42.2	42.1	-0.1	14.4	13.7	-0.7	107	100	-7	41	45	+4	421[a]	407	-14	497[a]	453	-44
43.4	43.1	-0.3	14.0	13.4	-0.6	105	99	-6	40	45	+5	433[a]	397	-36	484[a]	443	-41
43.5	43.3	-0.2	14.4	13.7	-0.7	104	100	-4	40	46	+6	415	413	-2	455[a]	447	-8
44.0[c]	43.8	-0.2	14.4	13.8	-0.6	108	106	-2	39	47	+8	476[a]	433	-43	495[a]	467	-28
42.2	41.8	-0.4	14.4	13.9	-0.5	95	94	-1	42	44	+2	414	388	-26	468[a]	423	-45
43.2	42.7	-0.5	14.0	13.3	-0.7	108	103	-5	39	42	+3	406	383	-23	451	428	-23

adings for one or more specimens which tore beyond the 3/8-inch limit.

Institute, one of the sheets in the "F" series was not identified. However, since it was in the "F-6" position, number.

been made on the sheets before they were weighed for basis weight.

" data are calculated from the totals of the individual readings.

TABLE XXII

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH DECEMBER 31, 1949 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elme... g In		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Di
									Mill F--42-lb. Linerboard									
139398	F-75	11/16/49	--	43.0	41.9	-1.1	13.7	13.2	-0.5	106	100	-6	39	38	-1	393[a]	339	-5
139399	F-76	11/17/49	--	44.7	43.5	-1.2	13.6	12.8	-0.8	117	109	-8	41	37	-4	396	352	-4
139400	F-77	11/22/49	--	43.0	42.0	-1.0	13.5	12.5	-1.0	114	105	-9	39	35	-4	361[a]	374	+1
139401	F-78	11/22/49	--	45.4	44.5	-0.9	14.0	13.5	-0.5	114	107	-7	42	41	-1	417[a]	395	-2
139402	F-79[b]	11/23/49	--	41.9[c]	41.1	-0.8	13.6	12.8	-0.8	108	102	-6	40	39	-1	368[a]	366	-:
139729	F-80	11/25/49	--	43.0	42.3	-0.7	13.6	12.9	-0.7	103	102	-1	38	40	+2	411[a]	384	-2
139730	F-81	11/26/49	--	44.1	43.6	-0.5	14.2	13.5	-0.7	115	107	-8	38	42	+4	415[a]	396	-1
139731	F-82	11/28/49	--	42.7	42.4	-0.3	14.4	13.8	-0.6	109	105	-4	41	43	+2	393	383	-1
139732	F-83	11/29/49	--	42.2	41.8	-0.4	13.6	13.1	-0.5	109	103	-6	38	41	+3	377[a]	386	+9
139733	F-84	11/30/49	--	43.2	42.5	-0.7	14.2	13.4	-0.8	112	110	-2	39	39	0	376	359	-17
139984	F-85	12/ 1/49	--	43.6	42.6	-1.0	13.8	13.0	-0.8	108	106	-2	37	40	+3	405[a]	362	-43
139985	F-86	12/ 2/49	--	42.9	42.3	-0.6	13.9	13.2	-0.7	105	100	-5	37	38	+1	391	373	-18
139986	F-87	12/ 6/49	--	41.8	41.7	-0.1	13.6	12.9	-0.7	104	100	-4	39	44	+5	427[a]	381	-46
139987	F-88	12/ 8/49	--	43.4	43.3	-0.1	14.0	13.4	-0.6	104	98	-6	37	42	+5	411[a]	367	-44
139988	F-89	12/10/49	--	43.9	43.5	-0.4	14.9	13.8	-1.1	106	102	-4	42	48	+6	425	406	-19
139989	F-90	12/12/49	--	42.2	42.1	-0.1	14.4	13.7	-0.7	107	100	-7	41	45	+4	421[a]	407	-14
139990	F-91	12/13/49	--	43.4	43.1	-0.3	14.0	13.4	-0.6	105	99	-6	40	45	+5	433[a]	397	-36
139991	F-92	12/14/49	--	43.5	43.3	-0.2	14.4	13.7	-0.7	104	100	-4	40	46	+6	415	413	-2
139992	F-93	12/15/49	--	44.0[c]	43.8	-0.2	14.4	13.8	-0.6	108	106	-2	39	47	+8	476[a]	433	-43
139993	F-94	12/22/49	--	42.2	41.8	-0.4	14.4	13.9	-0.5	95	94	-1	42	44	+2	414	388	-26
Current Mill Average:				43.2	42.7	-0.5	14.0	13.3	-0.7	108	103	-5	39	42	+3	406	383	-23

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

[b] Of the sheets received by the Institute, one of the sheets in the "F" series was not identified. However, since it was ... it was assumed to be this number.

[c] The burst determinations had been made on the sheets before they were weighed for basis weight.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXIII

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH DECEMBER 31, 1949 (continued)

Institute Data versus Mill Data

Mach. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmendorf Tear g./sheet					
													In			Across		
	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
Mill G--42-lb. Linerboard																		
1	43.3	43.3	0.0	14.1	14.2	+0.1	104	107	+3	36	39	+3	416[a]	384	-32	456[a]	407	-49
1	43.1	43.2	+0.1	13.6	13.4	-0.2	105	108	+3	33	36	+3	399[a]	365	-34	403[a]	395	-8
1	41.5	41.4	-0.1	13.3	13.4	+0.1	114	109	-5	33	33	0	391[a]	342	-49	410[a]	372	-38
1	41.5	41.2	-0.3	13.4	13.4	0.0	103	107	+4	33	33	0	377[a]	345	-32	403[a]	374	-39
1	43.2	42.9	-0.3	13.3	13.9	+0.6	115	110	-5	36	39	+3	399[a]	384	-15	440[a]	410	-30
1	42.9	43.3	+0.4	13.5	13.7	+0.2	108	110	+2	37	38	+1	410[a]	378	-32	433[a]	406	-27
1	43.6	43.8	+0.2	13.4	13.6	+0.2	113	111	-2	39	39	0	409	410	+1	430[a]	442	+12
1	43.7	44.0	+0.3	13.5	13.5	0.0	116	113	-3	38	39	+1	419[a]	385	-34	447[a]	413	-34
	42.9	42.9	0.0	13.5	13.6	+0.1	110	109	-1	36	37	+1	403	374	-29	428	402	-26

TABLE XXIV

Mill H--42-lb. Linerboard																		
2	41.8	42.4	+0.6	12.7	12.7	0.0	102	104	+2	32	31	-1	349	342	-7	386[a]	390	+4
3	42.1	42.2	+0.1	13.0	12.9	-0.1	103	101	-2	32	32	0	406[a]	348	-58	426[a]	379	-47
	41.9	42.3	+0.4	12.9	12.8	-0.1	102	102	0	32	32	0	378	345	-33	406	384	-22

TABLE XXV

Mill I--42-lb. Linerboard																		
1	44.3	43.7	-0.6	12.3	12.6	+0.3	105	108	+3	34			337	327	-10	407[a]	374	-33
1	44.6	43.1	-1.5	13.4	13.3	-0.1	105	106	+1	38			361	371	+10	430[a]	451	+21
	44.7	42.7	-2.0	13.3	13.0	-0.3	101	106	+5	38			368[a]	327	-41	426[a]	433	+7
	44.5	43.1	-1.4	13.0	13.0	0.0	103	107	+4	37			355	342	-13	421	419	-2

readings for one or more specimens which tore beyond the 3/8-inch limit.
sample sent to the Institute. The mill data sheet gives the date of manufacture as December 5, 1949.

TABLE XXIII

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH DECEMBER 31, 1949 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Date Made	Mch. No.	Basis Weight, lb. IPC	Basis Weight, lb. Mill	Basis Weight, lb. Diff.	Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Strength, points IPC	Bursting Strength, points Mill	Bursting Strength, points Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	IPC	Mi.
Mill G--42-lb. Linerboard																	
139316	G-210	11/28/49	1	43.3	43.3	0.0	14.1	14.2	+0.1	104	107	+3	36	39	+3	416[a]	3[illegible]
139317	G-211	11/30/49	1	43.1	43.2	+0.1	13.6	13.4	-0.2	105	108	+3	33	36	+3	399[a]	3[illegible]
139394	G-212	12/ 8/49	1	41.5	41.4	-0.1	13.3	13.4	+0.1	114	109	-5	33	33	0	391[a]	3[illegible]
139395	G-213	12/ 8/49	1	41.5	41.2	-0.3	13.4	13.4	0.0	103	107	+4	33	33	0	377[a]	34
139630	G-214	12/12/49	1	43.2	42.9	-0.3	13.3	13.9	+0.6	115	110	-5	36	39	+3	399[a]	3[illegible]
139631	G-215	12/12/49	1	42.9	43.3	+0.4	13.5	13.7	+0.2	108	110	+2	37	38	+1	410[a]	37
139901	G-216	12/21/49	1	43.6	43.8	+0.2	13.4	13.6	+0.2	113	111	-2	39	39	0	409	41
139902	G-217	12/21/49	1	43.7	44.0	+0.3	13.5	13.5	0.0	116	113	-3	38	39	+1	419[a]	3[illegible]
Current Mill Average:				42.9	42.9	0.0	13.5	13.6	+0.1	110	109	-1	36	37	+1	403	37

TABLE XXIV

Mill H--42-lb. Linerboard																	
139748	H-148	12/12/49[b]	2	41.8	42.4	+0.6	12.7	12.7	0.0	102	104	+2	32	31	-1	349	34
139924	H-149	12/14/49	3	42.1	42.2	+0.1	13.0	12.9	-0.1	103	101	-2	32	32	0	406[a]	34
Current Mill Average				41.9	42.3	+0.4	12.9	12.8	-0.1	102	102	0	32	32	0	378	34

TABLE XXV

Mill I--42-lb. Linerboard																	
139333	I-91	11/28/49	1	44.3	43.7	-0.6	12.3	12.6	+0.3	105	108	+3	34			337	32
139798	I-92	12/ 3/49	1	44.6	43.1	-1.5	13.4	13.3	-0.1	105	106	+1	38			361	37
139799	I-93	12/ 6/49	1	44.7	42.7	-2.0	13.3	13.0	-0.3	101	106	+5	38			368[a]	32
Current Mill Average:				44.5	43.1	-1.4	13.0	13.0	0.0	103	107	+4	37			355	34

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.
[b] This date appeared on the sample sent to the Institute. The mill data sheet gives the date of manufacture as Decembe

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXVI

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH DECEMBER 31, 1949 (continued)

Institute Data versus Mill Data

ch. o.	Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
							Mill J--42-lb. Linerboard											
1	42.8	42.6	-0.2	13.9	14.1	+0.2	111	107	-4	33	33	0	353[a]	327	-26	377[a]	389	+12
1	42.1	42.2	+0.1	13.9	14.2	+0.3	115	104	-11	33	34	+1	355	335	-20	405[a]	369	-36
1	44.1	43.9	-0.2	14.1	14.2	+0.1	110	108	-2	35	37	+2	377[a]	391	-14	411[a]	465	+54
1	43.4	43.4	0.0	13.9	14.1	+0.2	110	108	-2	36	37	+1	370[a]	375	+5	398[a]	421	+23
	43.1	43.0	-0.1	14.0	14.2	+0.2	111	107	-4	34	35	+1	364	357	-7	398	411	+13

TABLE XXVII

Mill E--44/46-lb. Drum Linerboard

L	44.4	44.6	+0.2	13.1	13.0	-0.1	122	116	-6	35	36	+1	410[a]	391	-19	413[a]	411	-2
L	45.7	44.2	-1.5	13.5	13.0	-0.5	110	112	+2	35	35	0	419	358	-61	413[a]	373	-40
L	47.1	45.8	-1.3	13.6	12.3	-1.3	102	103	+1	38	35	-3	467[a]	362	-105	404[a]	390	-14
L	47.2	47.5	+0.3	13.4	13.5	+0.1	116	116	0	41	42	+1	446[a]	491	+45	442[a]	488	+46
L	46.0	44.9	-1.1	13.3	12.6	-0.7	107	106	-1	39	38	-1	433[a]	402	-31	413[a]	402	-11
L	47.4	46.6	-0.8	13.7	13.2	-0.5	106	109	+3	38	38	0	490[a]	454	-36	433[a]	408	-25
L	47.0	46.1	-0.9	13.7	12.7	-1.0	108	108	0	40	37	-3	467[a]	429	-38	439[a]	416	-23
L	47.7	46.6	-1.1	14.6	13.6	-1.0	101	102	+1	43	35	-8	478[a]	365	-113	458[a]	381	-77
	46.6	45.8	-0.8	13.6	13.0	-0.6	109	109	0	39	37	-2	451	406	-45	427	409	-18

readings for one or more specimens which tore beyond the 3/8-inch limit.

erage" data are calculated from the totals of the individual readings.

TABLE XXVI

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH DECEMBER 31, 1949 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, points			G. E. Puncture, units			Elmend g./		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	In Mill	Dif
										Mill J--42-lb. Linerboard								
139390	J-171	12/ 4/49	1	42.8	42.6	-0.2	13.9	14.1	+0.2	111	107	-4	33	33	0	353[a]	327	-2
139391	J-172	12/ 4/49	1	42.1	42.2	+0.1	13.9	14.2	+0.3	115	104	-11	33	34	+1	355	335	-2
139724	J-173	12/14/49	1	44.1	43.9	-0.2	14.1	14.2	+0.1	110	108	-2	35	37	+2	377[a]	391	-1
139725	J-174	12/14/49	1	43.4	43.4	0.0	13.9	14.1	+0.2	110	108	-2	36	37	+1	370[a]	375	+
Current Mill Average				43.1	43.0	-0.1	14.0	14.2	+0.2	111	107	-4	34	35	+1	364	357	-

TABLE XXVII

Mill E--44/46-lb. Drum Linerboard

139318	E-122	11/29/49	1	44.4	44.6	+0.2	13.1	13.0	-0.1	122	116	-6	35	36	+1	410[a]	391	-1
139322	E-123	12/ 1/49	1	45.7	44.2	-1.5	13.5	13.0	-0.5	110	112	+2	35	35	0	419	358	-6
139392	E-124	12/ 5/49	1	47.1	45.8	-1.3	13.6	12.3	-1.3	102	103	+1	38	35	-3	467[a]	362	-10
139629	E-125	12/13/49	1	47.2	47.5	+0.3	13.4	13.5	+0.1	116	116	0	41	42	+1	446[a]	491	+4
139728	E-126	12/15/49	1	46.0	44.9	-1.1	13.3	12.6	-0.7	107	106	-1	39	38	-1	433[a]	402	-3
139925	E-127	12/22/49	1	47.4	46.6	-0.8	13.7	13.2	-0.5	106	109	+3	38	38	0	490[a]	454	-3
139982	E-128	12/23/49	1	47.0	46.1	-0.9	13.7	12.7	-1.0	108	108	0	40	37	-3	467[a]	429	-3
140010	E-129	12/28/49	1	47.7	46.6	-1.1	14.6	13.6	-1.0	101	102	+1	43	35	-8	478[a]	365	-11
Current Mill Average:				46.6	45.8	-0.8	13.6	13.0	-0.6	109	109	0	39	37	-2	451	406	-4

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.